ABSTRACT OF THE DISCLOSURE

A signal processor is adapted for aligning two or more hyper-concatenated data streams, each data stream being conveyed within a respective parallel channel and having substantially equivalent bit and frame rates. The signal processor comprises a respective channel processor for each channel for processing a respective data stream. Each channel processor includes a framer, a memory, an interface, and an output timer. The framer generates a local strobe signal indicative of a timing of incoming frames of the respective data stream. The memory buffers incoming bits of the respective data stream. The interface selectively sends the local strobe signal to, and receives a master strobe signal from, an adjacent channel processor. The output timer controls a timing of outgoing bits of the respective data stream based on a selected one of the local and master strobe signals.